

ABSTRACT

A method for manufacturing a bevel gear member, comprises the steps of providing a bevel gear blank having a gearhead, forming gear teeth on the gearhead of the bevel gear
5 blank by simultaneously cutting gear tooth top land, gear tooth side profile and a bottom land to form an unfinished bevel gear member using a face hobbing process, and machining at least one selected surface of the unfinished bevel gear member using the top lands of said gear teeth as a datum for centering the unfinished bevel gear member, thus forming a finished product.

The method is applicable for manufacturing the bevel gear member both with shaft axially
10 extending from the gearhead and without the shaft. The bevel gear members manufactured with this method exhibit reduced runout and require simpler, less expensive tooling.